

REMARKS/ARGUMENTS

Status of the Claims

Claims 1-20 are pending in this application.

Claims 1-20 are rejected.

Claim 3 has been cancelled, with out prejudice.

Claims 1& 13 have been amended. Support for these amendments can be found throughout the specification, claims and drawings as originally filed.

The examiner has rejected claims 1, 2 and 5-9 under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,481,271 to Ward et al. Further, the examiner has rejected claims 3, 4 and 10-20 under 35 U.S.C. 103(a) as being unpatentable over Ward et al. '271 in view of Tran et al., United States Patent No. 6,481,271.

United States Patent No. 6,481,271 to Ward et al. discloses a vibration analyzer 16 coupled to a roll test computer system 18 and an accelerometer 20. The vibration analyzer 16 reads a vibration signal obtained from the accelerometer 20 which is placed on the vehicle. The vibration analyzer 16 does an analysis to determine the various input frequencies and their magnitudes, it does not record nor does it analyze sound or sound levels.

United States Patent No. 6,481,271 to Tran et al. discloses the use of a kit 200 having the CD player 204, an amplifier 208, a base shaker 210 and a CD 218 with a set of excitation signals stored on separate tracks thereof. (Col. 5, lines 1-20.) The base shaker 210, also known as an inertial actuator, is connected to a target component, such as to the instrument panel 223 of a vehicle, as shown in Figure 4. (Col. 5, lines 21-33.)

As disclosed in Tran et al. '882 the calibration signals are used to drive the vibration generation device to vibrate the base shaker, which in turn vibrates the target component with energy content spread over an appropriate frequency range so as to induce squeak and rattle vibrations in the target component. (Col. 4, lines 45-58.)

Claim 1 has been amended to include the elements of claim 3. Claim 3 includes as an element thereof the step of computing an objective metric based on an N10 loudness scale from acquired sound data. Neither Ward et al. '271 or Tran et al. '882 discloses generating an objective metric based on measured sound by acquiring sound data and computing an objective metric based on an N10 loudness scale from the acquired sound data.

As set forth above, Ward et al. '271 discloses use of a vibration analyzer which reads a vibration signal obtained from an accelerometer and Tran et al. '882 uses an inertial actuator to vibrate a component to ascertain whether it is the source of a squeak or rattle. As the elements of amended claim 1 are not taught or suggested by the combination of Ward et al. '271 and Tran et al. '882, Applicants submit that claim 1 and the claims dependent therefrom are allowable as written.

Claim 10 includes as an element the step of using a data acquisition apparatus to record vibration induced sound. Nothing in Tran et al. '882, nor the combination of Ward et al. '271 and Tran et al. '882 teaches the use of a data acquisition apparatus to record sound. To the contrary, as set forth above, Tran et al. '882 teaches the use of a calibration signal used to drive a vibration generating device, such as a base shaker to vibrate a component or structure on a vehicle to determine if the component to which the base shaker is attached will squeak or rattle when vibrated. Accordingly, applicants submit that claim 10 and the claims dependent therefrom are allowable as written.

Claim 18 includes as an element the step of measuring and recording the sound level emitted from the vehicle during operation. As set forth above, nothing in Tran et al. '882, nor the combination of Ward et al. '271 and Tran et al. '882 teaches the use of recording the sound level emitted during vehicle operation. Accordingly, applicants submit that claim 18 and the claims dependent therefrom are allowable as written.

It is respectfully submitted that in view of the above amendments and remarks the claims are patentably distinguishable because the cited patents, whether taken alone or in combination, do not teach, suggest or

render obvious, the present invention. Therefore, applicant submits that the pending claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the applicant's undersigned attorney at (313) 337-1069 if any unresolved matters remain.

Please charge any cost incurred in the filing of this Amendment, along with any other costs, to Deposit Account 06-1510. If there are insufficient funds in this account, please charge the fees to Deposit Account No.06-1505.

Respectfully submitted,



Ray Coppiellie
Registration No. 33,311
Attorney/Agent for Applicant(s)

Date: 5/20/2004
Ford Global Technologies, LLC
600 Parklane Towers East
Dearborn, Michigan 48126
Phone: 1-313-337-1069
Fax: 1-313-322-7162